Fort Matanzas National Monument
Monthly Resource Management Update
September 30, 2011

Sea Turtle Nesting

In the past month six more sea turtle nests have been evaluated by park staff and volunteers. Due to impacts from Hurricane Irene (numerous washovers depositing copious amounts of additional sand on existing nests), it was feared that nests would suffer from compaction and inundation, resulting in high hatchling mortality rates. This, unfortunately, turned out to be the case for many of the nests, but not all of them.

Nest #3 was definitely an exception. It was located the furthest south of any of the nests, not far from the inlet, where the beach is predominately composed of coarse coquina sand (as opposed to fine silica quartz). It was also situated on a portion of beach that is elevated relative to the shoreline, having been built up over time by waves and currents proximate to the inlet. When the nest was dug up, one dead hatchling was discovered, along with thirteen unhatched eggs, and 146 hatched eggs! While this is by no means unprecedented, when it's considered that an average nest consists of about 100 eggs with an 80% hatching rate, Nest #3 did very well indeed.

It helped make up for Nest #4, which was actually never found. It was located the closest to the shoreline of any of the nests and was completely submerged during high tide cycles. Nest #5 contained three live hatchlings (75 eggs total). No hatchlings emerged from Nest #6 or Nest #7. Nest #8, while not a huge success based on the total number of unhatched eggs (105), did produce thirty-one live hatchlings, which were stalled in their attempt to reach the surface. This impressive "ball" of squirming mini-loggerheads was placed in a bucket, along with wet sand from the swash zone. After it was certain no more hatchlings remained buried, the infant sea turtles were let loose in the waves, each one making a bee-line out to sea.

It should be remembered, though, that on average only one in 5,000 hatchlings survive to adulthood, so the odds are against these little ones. But some chance is better than none, and certainly better than remaining entombed under layers of compacted sand. One nest remains to be evaluated next month, which will round out a record year for nesting, and at least an above average year for hatchling production so far (256).

Landbird Monitoring

With all the attention given to seabird monitoring at Fort Matanzas, being a prime coastal park adjacent to an ocean inlet and estuarine waterways, so-called "landbirds" can be unfairly overlooked. All birds are important components of their respective ecosystems, and this fact is recognized by the NPS Inventory & Monitoring Program. In 2010 researchers contracted through the local I&M office (University of Georgia-Athens), in cooperation with park staff, conducted fieldwork in several of the network parks, including Ft. Matanzas. The goal was to study the composition, distribution, and diversity of bird species utilizing the park. Using protocols that included visual and auditory identification of birds, the researchers detected over 3,000 individual birds representing fifty-two species. Through this work, three new species were added to the park's bird species list: the cliff swallow, the blackpoll warbler, and the blue-winged warbler. The Carolina wren and the northern cardinal were the most commonly encountered species in the park. A report on the study has just been released.